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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,401	11/24/2000	Krister Hansson	TPP 31352	2813

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EXAMINER

PARKER, FREDERICK JOHN

ART UNIT

PAPER NUMBER

1762

14

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

mn-14

Office Action Summary

Application No.

09/718401

Applicant(s)

Examiner

Group Art Unit

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE — 3 — MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 12/3/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-25, 28 is/are pending in the application.
- ☐ Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1-25, 28 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 13
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/2/02 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1,2,8,9,18 are rejected under 35 U.S.C. 102() as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 4-126571 (JP'571), citations directed to translation.

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JP'571 teaches a method for coating paper, wood, plastic sheets, etc to form simulated wood or stone patterns comprising the steps of ; applying to the substrate a printed first ink pattern layer free of liquid repellant (= "decor layer"); applying a second printed ink pattern layer of an electron beam or ultraviolet-curing acrylate coating material containing the liquid repellant substance (wax, silicone, etc), see page 7, 13-19; and then applying thereon a liquid top coating (= "wear layer") which may comprise cross-linkable acryl(ic) resin (per Applicants description of lacquer, specification page 8,20-21) which may be cured by ultraviolet or electron beam radiation (page 12, 2 middle paragraphs). The liquid coating is repelled from the liquid repellant of the second pattern layer, thereby forming concave grooves or indents corresponding to the second pattern layer ("surface feature"). The description and composition of the second pattern layer and Applicants'"wetting repellant lacquer" (described on top of page 9) are essentially the same. Furthermore, Applicants state the repellant lacquer is applied by ink jet printing on page 13, lines 30-31 & Example 1, which would appear to be an impossibility for conventional lacquers given their viscosity/ stickiness. The use of "lacquer" instead of "ink" by Applicants thereby becomes an issue of semantics, the Examiner considering the two to be

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the same in view of the fair readings of the reference and Applicants' specification.

Alternatively, given the similarities of Applicants' "wetting repellant lacquer" and the repellant ink of the reference, it would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the method of JP' 571 by applying liquid lacquer coating materials of similar composition and function because of the expectation of producing similar decorative simulated wood or stone patterns.

Page 6, last paragraph states the second pattern layer may be transparent or colored (same as "translucent") or opaque, per claims 10-11.

Example 1 of the reference states the second pattern layer comprising repellant silicone is cured prior to applying the topcoat/ wear layer, per claim 14.

6. Claims 3,16,17,23,24,25 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'571.

JP' 571 is cited for the same reasons discussed above, which are incorporated herein.

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Per claim 3, while multiple applications of the topcoat/ wear layer are not taught, the application of multiple layers with at least some curing therebetween would have been an obvious step to one of ordinary skill to provide a desired thickness for imparting desired protective characteristics, appearance, etc.

As to claim 16, the repellant second layer is applied by any conventional printing method (page 8, paragraph 3) which would encompass ink jet printing and hence its use in the process would have been an obvious variation for applying the liquids in a design since ink jet printing is conventionally used to print liquids in a design.

As to claim 17, Applicants' particle board or fire board are the same as, or suggestive of, the "various kinds of woods and plywoods, etc" taught on page 5, lines 11-13 of JP'571, and hence their use in the process would have been obvious because of the expectation of similar results.

As to claims 23-25, since it is taught to use the process for a "wood grain pattern", it would have been obvious to configure the second layer to form the grain design.

7. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'571 in view of Gaeta et al US 5624471.

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JP'571 is cited for the same reasons discussed above, which are incorporated herein. Inclusion of wear particles into the upper topcoat layer is not cited.

Gaeta et al teaches on col. 2, 14-20 and col. 3, 37-41 that UV polymerizable binder resins including epoxy-acrylates, epoxy-novalacs, etc are applied to cellulosic substrates (paper) and used to bind abrasive grit particles including alumina, silicon carbide, diamond, etc and mixtures thereof. The examples cite particle sizes of 180 grit (approx. 80 microns) which is within the range of claim 4. While the diamond particle size of claim 7 is not cited, the particle sizes of Gaeta et al are not limited, and the use of particle sizes based upon application and particle size of commercially available diamond materials would have been obvious.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process of JP'571 by incorporating abrasion resistant particles in the curable layer as taught by Gaeta et al to provide the desired hardness and abrasion resistance.

8. Claims 15,19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'571 in view of Pieters GB2 324 982.

JP'571 is cited for the same reasons discussed above, which are incorporated herein. Computer-controlled application of designs is not cited.

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Pieters teaches to apply decorative patterns of UV curable inks onto a wood-based substrate by photographically or digitally imaging a wood-grain pattern from an original veneer, wood, or marquetry design; downloading the pattern into a computer; and then using computer-aided screen printing to apply the UV curable ink onto the substrate. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process of JP'571 by incorporating the computer-aided printing of Pieters to apply the UV curable design coatings because of the expectation of producing the designs required to make the decorative sheet.

9. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'571 in view of Siry et al US 4501635.

JP'571 is cited for the same reasons discussed above, which are incorporated herein. A matting agent in the overcoat is not cited.

Siry et al teaches to apply resin coatings to a substrate, the top coating layer being a radiation-curable varnish which contains "customary additives" including matting agents which are well-known in the art as additives to provide low gloss or muted surface finishes. The manipulation and addition of such customary agents to form a "shadow effect" would have been an obvious

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variation to create a desired aesthetic design, which would not patentably distinguish over the prior art. Matters related to the choice of ornamentation producing no mechanical effect or advantage considered to constitute the invention are considered obvious and do not impart patentability, In re Seid 73 USPQ 431. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process of JP'571 by incorporating customary matting agents into the topcoat layer as taught by Siry et al to provide the surface with aesthetically pleasing low gloss or muted surface finishes.

10. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'571 in view of Barker et al US 4233343

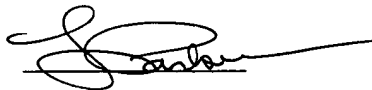
JP'571 is cited for the same reasons discussed above, which are incorporated herein. A primer undercoat is not cited.

Barker et al teaches a method of forming simulated 3-dimensional wood grain designs using topcoat-repellant inks, in which the pattern forming layers are applied to a substrate having thereon an under-coat (synonymous with "primer") to form a background as well as to seal the surface to be coated (col. 7, 67- col. 8, 2).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of JP'571 by incorporating an under-coat (primer) as taught by Barker et al to provide a sealed background surface onto which additional decorative layers are applied.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred J. Parker whose telephone number is (703) 308-3474.



Fred J. Parker

**FRED J. PARKER
PRIMARY EXAMINER**

January 7, 2003

rce9-718401